Specification Information Note

WAP-190_104-WAESpec-20010731-a

Version 31-July-2001

for

Wireless Application Protocol
WAP-190-WAESpec-20000329-a
Wireless Application Environment Specification
Version 1.3 29 March 2000

A list of errata and updates to this document is available from the WAP Forum™ Web site, http://www.wapforum.org/, in the form of SIN documents, which are subject to revision or removal without notice.

© 2001, Wireless Application Protocol Forum, Ltd. All Rights Reserved. Terms and conditions of use are available from the WAP Forum™ Web site (http://www.wapforum.org/what/copyright.htm).

© 2001, Wireless Application Forum, Ltd. All rights reserved.

Terms and conditions of use are available from the WAP Forum™ Web site at http://www.wapforum.org/what/copyright.htm.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. You may not use this document in any other manner without the prior written permission of the WAP Forum™. The WAP Forum authorises you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services offered by you.

The WAP Forum™ assumes no responsibility for errors or omissions in this document. In no event shall the WAP Forum be liable for any special, indirect or consequential damages or any damages whatsoever arising out of or in connection with the use of this information.

WAP Forum™ members have agreed to use reasonable endeavors to disclose in a timely manner to the WAP Forum the existence of all intellectual property rights (IPR's) essential to the present document. The members do not have an obligation to conduct IPR searches. This information is publicly available to members and non-members of the WAP Forum and may be found on the "WAP IPR Declarations" list at http://www.wapforum.org/what/ipr.htm. Essential IPR is available for license on the basis set out in the schedule to the WAP Forum Application Form.

No representations or warranties (whether express or implied) are made by the WAP Forum™ or any WAP Forum member or its affiliates regarding any of the IPR's represented on this list, including but not limited to the accuracy, completeness, validity or relevance of the information or whether or not such rights are essential or non-essential.

This document is available online in PDF format at http://www.wapforum.org/.

Known problems associated with this document are published at http://www.wapforum.org/.

Comments regarding this document can be submitted to the WAP Forum™ in the manner published at http://www.wapforum.org/.

Contents

1. SCOPE **4**

2. NOTATION **4**

3. CHANGE OF NORMATIVE REFERENCES **5**

3.1 CHANGE CLASSIFICATION 5
3.2 CHANGE SUMMARY 5
3.3 CHANGE DESCRIPTION 5

4. UPDATED SCR TABLE **6**

4.1 CHANGE CLASSIFICATION 6
4.2 CHANGE SUMMARY 6
4.3 CHANGE DESCRIPTION 7

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

1. Scope

This document provides changes and corrections to the following document files:

- WAP-190-WAESpec-20000329-a

It includes changes from the following change requests:

- CR-WAE-1_3_SEC-2001012-SCRChanges-01
- CR-WAE1_3-IBM-200107012-1
- CR-WAESCR-Ericsson-20000714-SCRChanges-3

2. Notation

In the subsections describing the changes new text is underlined. Removed text has ~~strikethrough~~ marks. The presented text is copied from the specification. Text that is not presented is not affected at all. The change descriptions may also include editor's notes similar to the one below. The notes are not part of the actual changes and must not be included in the changed text.

Editor's note: Framed notes like these only clarify where and how the changes shall be applied.

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

3. Change 1: Change of Normative References

3.4 Change Classification

Class 3 – Clerical Corrections

3.5 Change Summary

Add normative reference to the <<Describe meaning of the change. In many cases it should be possible to copy-paste from the change request>>

3.6 Change Description

Editor's note: On page <<number>>

Proposed Change #1:

3.1 Normative References

...

[CREQ] "Specification of WAP conformance requirements", document identifier WAP-221-CREQ-20010425. WAP Forum, 25-April-2001. URL: http://www.wapforum.org/[1]

[1] Exact version and date of the normatively referenced specification need to be an approved version of the specification.

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

4. Change 2: Updated SCR Table

4.1 Change Classification

Class 3 – Clerical Corrections

4.2 Change Summary

Provide SCRs in the new format as described in WAP Forum document WAP-221-CREQ-200104251.

- Base changes were provided in CR-WAE-1_3_SEC-2001012-SCRChanges-01 as shown in the following table

SCR Change Details:

Item	Change
General	Spec name part is added to the SCR Item name; e.g. WAE-C-002 was changed to WAESpec-C-002
General	Dependency rule was changed to follow syntax defined in WAP-221-CREQ-20010425
WAESpec-C-001, WAESpec-S-001	Removed, because these items just refer to CCR and not define anything.
WAESpec-C-004, 008 - 014, WAESpec-S-004, 008 - 014	Removed, because these items were removed from WAE1.1 SCR.
WAESpec-C-015, 016, 017, WAESpec-S-015, 016, 017	Status was changed from "<CCR>" to "M".
WAESpec-C-018, WAESpec-S-018	Status was changed from "<CCR>" to "O".
WAESpec-C-024, WAESpec-S-024	Removed. But removal of image/png support depends on WAP-190_102-20001213-d.pdf
WAESpec-WVDT-C-014 - 020	Changed to be equivalent to WAE1.1 SCR.
WAESpec-WCHH-S-001, 002	SCR item name was "C" which was illegal for server side SCR. This bug was fixed.

- CR-WAE1_3-SEC-20010112-SCRChanges-01 corrects the format for and adds the dependency for <img> in WML version 1.3 in the WAESpec-WGRAPHICS-C-001 SCR.
- CR-WAESCR-Ericsson-20000714-SCRChanges-3 which states

SCR Change Details:

Item	Change
WAESpec-WVDT-C-016 and WAESpec-WVDT-C--019	Clarify dependencies

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

WAESpec-S-004, 008 - 014	As above in CR-WAE1_3-SEC-20010112-SCRChanges-01
WAESpec-WCHH-S-002	As above CR-WAE1_3-SEC-20010112-SCRChanges-01
WAESPec-VDT-C-012 and -013	Ensure .vcf and .vcs extensions are optional

Interpretation of CR-WAESCR-Ericsson-20000714-SCRChanges-3 is necessary to accomdate the new format

- Add change to the dependencies for WDP ports for vCard and vCalendar and split the two
-

4.3 Change Description

The following represents the resulting new SCR table.

Appendix B: Static Conformance Requirements

This static conformance requirement defines a minimum set of features that can be implemented to ensure that WAE User Agents and WAE Servers will be able to inter-operate. While both WAE User Agent behaviour and WAE server behaviour are described in the WAE Specification, not all items apply to both entities, so there are separate tables for each. See [ConfReqSpec] for syntax used in this section.

1. WAE User Agent

1.1 General WAE Features

1.1.1 Session Layer Interface

Item	Function	Reference	Status	Requirement
WAESpec-C-001	(Removed)~~WSP~~	~~5.1.1~~	~~<CCR>~~	

1.1.2 Basic Authentication Scheme

Item	Function	Reference	Status	Requirement
WAESpec-C-002	Basic http 1.1 authentication	5.1.2	M	

1.1.3 URL Schemes

Item	Function	Reference	Status	Requirement
WAESpec-C-003	http: URL scheme	5.1.3	M	

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

1.1.4 User Agent Characteristics

Item	Function	Reference	Status	Requirement
WAESpec-C-004	(Removed)~~User Agent Characteristics freporting via uaprof profile~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-005	Character set / encoding	5.1.4	M	
WAESpec-C-006	Language	5.1.4	M	
WAESpec-C-007	Media Type	5.1.4	M	
WAESpec-C-008	(Removed) ~~WML Version~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-009	(Removed) ~~WMLScript Version~~ ~~Floating Point Support~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-010	(Removed) ~~Standard Libraries Supported~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-011	(Removed) ~~WTA Version~~ ~~Event Tables Used~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-012	(Removed) ~~WTAI Basic Version~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-013	(Removed) ~~WTAI Public Version~~	~~5.1.4~~	~~N/a~~	
WAESpec-C-014	(Removed) ~~List WTAI Net Spec Versions~~ ~~List WTAI Network Specific Libraries~~	~~5.1.4~~	~~N/a~~	

1.1.5 Wireless Markup Language

Item	Function	Reference	Status	Requirement
WAESpec-C-015	Wireless Markup Language	5.1.5	M~~<CCR>~~	

1.1.6 WMLScript

Item	Function	Reference	Status	Requirement
WAESpec-C-016	WML Script	5.1.6	M~~<CCR>~~	

1.1.7 WAE User Agents

Item	Function	Reference	Status	Requirement

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

WAESpec-C-017	WML User Agent	5.1.7.2	M~~<CCR>~~	
WAESpec-C-018	WTA User Agent	5.1.7.1	O~~<CCR>~~	

1.1.8 WAE Media Types

Item	Function	Reference	Status	Requirement
WAESpec-C-019	application/vnd.wap.wbxml media type	5.1.8.1	M	
WAESpec-C-020	application/vnd.wap.wmlc media type	5.1.8.1	M	
WAESpec-C-021	application/vnd.wap.wmlscriptc media type	5.1.8.2	~~WMLS:~~ M	
WAESpec-C-022	text/x-vCard media type	5.1.8.3	~~OWVTD: M~~	
WAESpec-C-023	text/x-vCalendar media type	5.1.8.4	~~OWVTD: M~~	
WAESpec-C-024	(removed)[2]			
WAESpec-C-025	image/vnd.wap.wbmp	5.1.8.5	~~OWGRAPHICS:M~~	
WAESpec-C-026	application/vnd.wap.multipart.mixed	5.1.8.6	~~Opush:M~~	[3]
WAESpec-C-027	application/vnd.wap.multipart.related	5.1.8.6	~~Opush:M~~	
WAESpec-C-028	application/vnd.wap.multipart.alternative	5.1.8.6	~~Opush:M~~	
WAESpec-C-029	application/vnd.wap.multipart.form-data	5.1.8.6	O	
WAESpec-C-030	Channels	5.1.8.7	~~OWTA: M~~	
WAESpec-C-031	Service Indication	5.1.9	~~Opush:M~~	[4]

[2] This was support for "image/png". Removal of this item occurred in WAP-190_102-WAESpec-20001213.

[3] WAESpec-C-026, 027, and 028 should be required by push support

[4] WAESpec-C-031 should be required by push support.

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

1.2 Graphic Image Support

Item	Function	Reference	Status	Requirement
WAESpec-WGRAPHICS-C-001	graphic image support	6.1	O~~<CCR>~~	WAESpec-WBMP-C-000 AND WML-C-32

1.3 WBMP

Item	Function	Reference	Status	Requirement
WAESpec-WBMP-C-000	Wireless bitmap support	6.1	~~WGRAPHICS:M~~ O	WAESpec-C-025 AND WAESpec-WBMP-C-001 AND WAESpec-WBMP-C-002 AND WAESpec-WBMP-C-003 AND WAESpec-WBMP-C-004 AND WAESpec-WBMP-C-005 AND WAESpec-WBMP-C-006 AND WAESpec-WBMP-C-007

1.3.1 WBMP Type Identifiers and Syntax

Item	Function	Reference	Status	Requirement
WAESpec-WBMP-C-001	image/vnd.wap.wbmp;level=0	6.1	O~~WBMP:M~~	
WAESpec-WBMP-C-002	WBMP syntax	6.2	O~~WBMP:M~~	

1.3.2 Header Data Structure

Item	Function	Reference	Status	Requirement
WAESpec-WBMP-C-003	multi-byte integer values	6.3.1	O~~WBMP:M~~	
WAESpec-WBMP-C-004	Header Parts	6.3.2	O~~WBMP:M~~	
WAESpec-WBMP-C-005	Extension Headers	6.3.2	O~~WBMP:M~~	

1.3.3 Image Data Structure

Item	Function	Reference	Status	Requirement
WAESpec-WBMP-C-006	data structures for supported image types	6.4	O~~WBMP:M~~	

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

1.3.4 Minimal Required Implementation

Item	Function	Reference	Status	Requirement
WAESpec-WBMP-C-007	Does the implementation support WBMP type 0 ?	6.5	~~OWBMP:M~~	

1.4 Calendar and Phone Book

1.4.1 Data Formats

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-C-001	vCard support	7.1	O	WAESpec-C-022 AND WAESpec-WVDT-C-014
WAESpec-WVDT-C-002	vCalendar support	7.1	O	WAESpec-C-023 AND WAESpec-WVDT-C-015

1.4.2 Data Transmission

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-C-003	vCard data using WDP datagrams	7.2	O	WAESpec-WVDT-C-009
WAESpec-WVDT-C-004	vCalendar data using WDP datagrams	7.2	O	WAESpec-WVDT-C-0021
WAESpec-WVDT-C-005	vCard data using WSP requests	7.2	O	WAESpec-WVDT-C-010
WAESpec-WVDT-C-006	vCalendar data using WSP requests	7.2	O	WAESpec-WVDT-C-011
WAESpec-WVDT-C-007	vCard data using Push	7.2	~~WVDT,Push:~~O	
WAESpec-WVDT-C-008	vCalendar data using Push	7.2	~~WVDT,Push:~~O	

1.4.3 WDP Datagram Data Exchange

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-C-009	Correct vCard WDP port and format when using WDP datagrams	7.2.1	~~OWVDT-C-003:M or WVDT-C-004~~	WDP-RP-C-003 AND WDP:MCF OR WDP-RP-C-005 AND WDP:MCF AND WTLS:MCF

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

WAESpec-WVDT-C-021	Correct vCalendar WDP port and format when using WDP datagrams	7.2.1	O	WDP-RP-C-004 AND WDP:MCF OR WDP-RP-C-006 AND WDP:MCF AND WTLS:MCF

1.4.4 WSP Data Exchange

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-C-010	text/x-vCard	7.2.2	~~OWVDT-C-005:M~~	
WAESpec-WVDT-C-011	text/x-vCalendar	7.2.2	~~OWVDT-C-006:M~~	
WAESpec-WVDT-C-012	.vcf extension	7.2.2	~~OWVDT-C-005:M~~	
WAESpec-WVDT-C-013	.vcs extension	7.2.2	~~OWVDT-C-006:M~~	

1.4.5 Required Terminal Behavior

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-C-014	vCard formats for sending phone book data or EBCD	7.3	~~OWVDT:M~~	WAESpec-WVDT-C-017 AND WAESpec-WVDT-C-018
WAESpec-WVDT-C-015	vCalendar formats for sending calendar information~~EBCD~~	7.3	~~OWVDT:M~~	WAESpec-WVDT-C-020
WAESpec-WVDT-C-016	phone book data exchange	7.3	~~OWVDT:O~~	WAESpec-WVDT-C-017 AND WAESpec-WVDT-C-018 AND WAESpec-WVDT-C-009
WAESpec-WVDT-C-017	Display of vCard 'Name' and 'Telephone Number' to user	7.3	~~OWVDT-C-014:M~~	
WAESpec-WVDT-C-018	Support 'Name' and 'Telephone Number' properties	7.3	~~OWVDT-C-014:M~~	
WAESpec-WVDT-C-019	Calendar Data Exchange	7.3	O	WAESpec-WVDT-C-020 AND WAESpec-WVDT-C-021
WAESpec-WVDT-C-02~~019~~	Display vEvent object ~~display~~ to user	7.3	~~OWVDT-C-015:M~~	

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

2. Static Conformance Requirement – WAE Server

2.1 General WAE Features

2.1.1 Session Layer Interface

Item	Function	Reference	Status	Requirement
WAESpec-S-001	(Removed)~~WSP~~	~~5.1.1~~	~~<CCR>~~	

2.1.2 Basic Authentication Scheme

Item	Function	Reference	Status	Requirement
WAESpec-S-002	Basic http 1.1 authentication	5.1.2	M	

2.1.3 URL Schemes

Item	Function	Reference	Status	Requirement
WAESpec-S-003	http: URL scheme	5.1.3	M	

2.1.4 User Agent Characteristics

Item	Function	Reference	Status	Requirement
WAESpec-S-004	(Removed) ~~User Agent Characteristics reporting via uaprof profile~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-005	Character set / encoding	5.1.4	M	
WAESpec-S-006	Language	5.1.4	M	
WAESpec-S-007	Media Type	5.1.4	M	
WAESpec-S-008	(Removed) ~~WML Version~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-009	(Removed~~) WMLScript Version~~ ~~Floating Point Support~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-010	(Removed~~) Standard Library Supported~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-011	(Removed~~) WTA Version Event Tables Used~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-012	(Removed~~) WTAI Basic Version~~	~~5.1.4~~	~~N/a~~	
WAESpec-S-013	(Removed) ~~WTAI Public Version~~	~~5.1.4~~	~~N/a~~	

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

WAESpec-S-014	(Removed) ~~List WTAI Net Spec Versions~~ ~~List WTAI Network Specific Libraries~~	~~5.1.4~~	~~N/a~~	

2.1.5 Wireless Markup Language

Item	Function	Reference	Status	Requirement
WAESpec-S-015	Wireless Markup Language	5.1.5	M~~<CCR>~~	

2.1.6 WMLScript

Item	Function	Reference	Status	Requirement
WAESpec-S-016	WML Script	5.1.6	M~~<CCR>~~	

2.1.7 WAE User Agents

Item	Function	Reference	Status	Requirement
WAESpec-S-017	WML User Agent	5.1.7.2	M~~<CCR>~~	
WAESpec-S-018	WTA User Agent	5.1.7.1	O~~<CCR>~~	

2.1.8 WAE Media Types

Item	Function	Reference	Status	Requirement
WAESpec-S-019	application/vnd.wap.wbxml media type	5.1.8.1	M	
WAESpec-S-020	application/vnd.wap.wmlc media type	5.1.8.1	M	
WAESpec-S-021	application/vnd.wap.wmlscriptc media type	5.1.8.2	M	
WAESpec-S-022	text/x-vCard media type	5.1.8.3	O~~WVTD: M~~	
WAESpec-S-023	text/x-vCalendar media type	5.1.8.4	O~~WVTD: M~~	
WAESpec-S-024	(removed)[5] ~~image/png~~	~~5.1.8.5~~	~~M~~	
WAESpec-S-025	image/vnd.wap.wbmp	5.1.8.5	M	

[5] This was support for "image/png".Removal of this item depends on the approval of the SCD WAP-190_102-WAESpec-20001213.

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

WAESpec-S-026	application/vnd.wap.multipart.mixed	5.1.8.6	~~Opush:M~~	[6]
WAESpec-S-027	application/vnd.wap.multipart.related	5.1.8.6	~~Opush:M~~	
WAESpec-S-028	application/vnd.wap.multipart.alternative	5.1.8.6	~~Opush:M~~	
WAESpec-S-029	application/vnd.wap.multipart.form-data	5.1.8.6	M	
WAESpec-S-030	Channels	5.1.8.7	O~~WTA: M~~	
WAESpec-S~~C~~-031	Service Indication	5.1.9	~~Opush:M~~	[7]

2.2 Client Header Handling

Item	Function	Reference	Status	Requirement
WAESpec-WCHH-~~C~~S-001	cached request headers in connect service primitive of WSP	8	M	
WAESpec-WCHH-~~C~~S-002	cached request headers in resume service primitive of WSP	8	~~M~~O	[8]

2.3 Calendar and Phone Book

2.3.1 Data Formats

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-S-001	vCard support	7.1	O	WAESpec-S-022
WAESpec-WVDT-S-002	vCalendar support	7.1	O	WAESpec-S-023

[6] WAESpec-S-026, 027, and 028 should be required by push support.

[7] WAESpec-S-031 should be required by push support.

[8] This item, WAESpec-WCHH-S-002, should be required by WSP_CO_S008 (support for WSP resume primitive).

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved

2.3.2 Data Transmission

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-S-003	vCard data using WDP datagrams	7.2	O	WAESpec-WVDT-S-009
WAESpec-WVDT-S-004	vCalendar data using WDP datagrams	7.2	O	WAESpec-WVDT-S-021
WAESpec-WVDT-S-005	vCard data using WSP requests	7.2	O	WAESpec-WVDT-S-010
WAESpec-WVDT-S-006	vCalendar data using WSP requests	7.2	O	WAESpec-WVDT-S-011
WAESpec-WVDT-S-007	vCard data using Push	7.2	O	
WAESpec-WVDT-S-008	vCalendar data using Push	7.2	O	

2.3.3 WDP Datagram Data Exchange

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-S-009	Correct vCard WDP port and format when using WDP datagrams	7.2.1	~~OWVDT-S-003:M or WVDT-S-004:M~~	WDP-RP-C-003 AND WDP:MCF OR WDP-RP-C-005 AND WDP:MCF AND WTLS:MCF
WAESpec-WVDT-S-021	Correct vCalendar WDP port and format when using WDP datagrams	7.2.1	O	WDP-RP-C-004 AND WDP:MCF OR WDP-RP-C-006 AND WDP:MCF AND WTLS:MCF

2.3.4 WSP Data Exchange

Item	Function	Reference	Status	Requirement
WAESpec-WVDT-S-010	text/x-vCard	7.2.2	~~OWVDT-S-005:M~~	
WAESpec-WVDT-S-011	text/x-vCalendar	7.2.2	~~OWVDT-S-006:M~~	
WAESpec-WVDT-S-012	(Removed) ~~.vcf extension~~	~~7.2.2~~	~~WVDT-S-005:M~~	
WAESpec-WVDT-S-013	(Removed) ~~.vcs extension~~	~~7.2.2~~	~~WVDT-S-006:M~~	

© 2001, Wireless Application Protocol Forum, Ltd.
All rights reserved